Law Enforcement Analyst – Foundational (LEAF) Study Guide & Reading Resources

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About the LEAF Study Guide

This study guide is to be used as a supplement to materials used in preparing for the LEAF Certification Exam. It is not meant to be the sole study tool for the exam. Questions on the exam may be worded differently than concepts provided in this study guide. This study guide is not all-inclusive and only provides general concepts that are covered on the exam. This study guide should also be used in combination with references found in the LEAF Study Resources.

Competency # 1 – Basics of Crime Analysis

- Types of Analysis
    - Tactical
    - Strategic
    - Administrative
    - Criminal Intelligence
- SARA Model
- Types of Crime Patterns
    - Series
    - Spree
    - Hot Prey
    - Hot Product
    - Hot Spot
    - Hot Place
    - Hot Setting
- Crime Trends
    - Qualitative Data
    - Chronic Problem
- Conducting Temporal Analysis
    - Time of Day
    - Day of Week
    - Time of Year

Competency # 2 – Basic Statistics

- Measures of Central Tendency
    - Median
    - Mode
    - Mean
- Data Variables
    - Nominal
    - Ordinal
    - Interval
    - Ratio
- Standard Deviation
- Calculating % of Change (principle and formula)
- Crime Rate Calculation

Competency # 3 – Crime Theory

- Environmental Criminology
  - Routine Activities Theory
  - Problem Analysis Triangle (aka Crime Triangle)
  - Crime Pattern Theory
    - Journey to Crime
- Rational Choice Theory
- Crime Displacement
- Broken Windows Theory
- Criminal Behavior
  - Recidivism
  - Victimology
  - 80/20 Rule
  - Modus Operandi & Signature

Competency # 4 – Mapping Basics

- Geographic Information Systems
- Point, Line, Polygon, Raster
- Contextual Data
- Geocoding
- Conducting Spatial Analysis
- Projections & Coordinate Systems
- Map Types
  - Density
  - Chloropeth
  - Single Symbol
  - Graduated Size

Competency # 5 – Databases and Data Management

- Excel
  - Pivot Tables
  - Concatenation & Parsing
  - Charts and Graphs
  - V-Lookup
- Access
  - Spreadsheets vs databases
  - Definition of a relational database
  - "One to Many" Concept
- Data Collection
  - Structured Data
  - Unstructured Data
  - ODBC – Open Database Connectivity
- Data Integrity
- Data Sources
  - CAD/RMS – Computer Aided Dispatch/Records Management System

Competency # 6 – Policing Models

- CPTED – Crime Prevention Through Environmental Design
- COMPSTAT – Compare Statistics
- DDACTS – Data Driven Approaches to Crime and Traffic Safety
- Problem Oriented Policing
- Intelligence Led Policing
- Community Policing
- Predictive Policing

Competency # 7 – Analytical Writing & Communications

- Writing Styles
  - Creative
  - Expository
  - Analytical
- Audience
  - Bias
  - Errors
- Bulletin Writing
  - Importance of information vs available space
- Information organization
- Software
  - Word Processors (ie Word)
  - Presentation Programs (ie PowerPoint, Prezi)
  - SmartArt (charts & graphs)

Competency # 8 – U.S. Specific

- UCR/NIBRS – Uniform Crime Reporting/National Incident-Based Reporting System
- General Policing Knowledge
  - BOLOS – "Be On The Look Out"
  - CAD/RMS
  - Chain of Command
  - General Terms

Competency # 8 – International

- Intelligence Led Policing (ILP)
  - Definition
  - Key Elements
  - The role of an analyst in ILP
  - Analytical capabilities
- Organized Crime
  - Definitions
- Trafficking
  - Human
  - Drug
- Cybercrime
- Environmental Crime
  - Wildlife
  - Timber

LEAF READING RESOURCES

While the IACA's textbook, Exploring Crime Analysis, is highly recommended for this exam, it is not required. There are many resources available to aid in preparation. The following list is an example of those resources:

Exploring Crime Analysis: Essential Skills 3rd edition
IACA

Better Police with Microsoft Office: Crime Analysis, Investigation and Community Policing
Mark Stallo & Christopher Bruce

Crime Analysis with Crime Mapping 4th edition
Rachel Boba Santos

Crime Analysis: From First Report to Final Arrest
Steve Gottlieb

Crime Pattern Definitions for Tactical Analysis
Standards, Methods, & Technology (SMT) Committee White Paper 2011-01
https://iaca.net/white-papers/

Definition and Type of Crime Analysis
Standards, Methods, & Technology (SMT) Committee White Paper 2014-02 October 2014
https://iaca.net/white-papers/

Intelligence Analysis for Problem Solvers
John E Eck and Ronald V Clarke
https://popcenter.asu.edu/content/library

Crime Analysis for Problem Solvers in 60 Small Steps (has multiple language versions)
Ronald V Clarke & John E Eck
https://popcenter.asu.edu/content/library

Introductory Guide to Crime Analysis and Mapping (version is from 2001)
Rachel Boba
https://cops.usdoj.gov/RIC/Publications/cops-w0273-pub.pdf